UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,568	09/05/2003	Stephen L. Spear	CS23169RA	7858

20280 7590 12/26/2007

MOTOROLA INC
600 NORTH US HIGHWAY 45
W4 - 39Q
LIBERTYVILLE, IL 60048-5343

EXAMINER	
FOUD, HICHAM B	

ART UNIT	PAPER NUMBER
2619	

NOTIFICATION DATE	DELIVERY MODE
12/26/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DOCKETING.LIBERTYVILLE@MOTOROLA.COM
ADB035@Motorola.com

Office Action Summary	Application No.	Applicant(s)	
	10/656,568	SPEAR ET AL.	
	Examiner	Art Unit	
	Hicham B. Foud	2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9 and 12-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 12-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed on 10-26-2007 has been entered and considered.

Claims 1-9 and 12-23 are pending in this application.

Claims 10-11 have been canceled.

Claims 1-9 and 12-23 remain rejected as discussed below.

Specification

2. The disclosure is objected to because of the following informalities:

In page 4 lines 11 and 13, the element 210 has to be changed to element number 220, because the element 210 is defined as the base station and the element 220 is the wireless device (see Figure 2).

In page 11 line 10, Fig. 8 has to be changed to Fig. 9, because the 8.5 guard time bits are defined in Figure 9 not in Figure 8.

Appropriate correction is required.

Claim Objections

3. Claims 1-9 and 12-23 are objected to because of the following informalities:

For claims 1-9 and 12-23, the term "and" needs to be added before the last limitation. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 2 and 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jokimies et al (US 6,526,267), hereinafter is referred to as Jokimies in view of Nam (GB 2383215 A).

For claim 1, Jokimies discloses a method in a wireless communications device, the method comprising: determining a distance of the wireless communications device from a base station (see Figure 1 step 5 "determine distances" and Figure 4); determining timing advance, at the wireless communications device, for the base station based on the distance of the wireless communications device from the base station (see Figure 1 step 6 "measure TA").

Jokimies discloses all the subject matter with the exception of explicitly disclosing the use of the timing advance determined for transmitting to the base station. However, Nam discloses the use of the timing advance for transmitting to the base station (see page 11 lines 1-4; the mobile terminal receives the TA (Timing Advance) signal and advances its transmission timing to correctly synchronize its transmission; inherently, uses the timing advance for transmitting to the base station). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the TA as taught by the system of Nam into the invention of Jokimies for the purpose of synchronization and communication to the base station.

For claim 2, Jokimies discloses, determining a location of the wireless communications device (see column 3 lines 27-30; detecting the home area), determining the distance of the wireless communications device from the base station using the location of the wireless communications device and a location of the base station (see Figure 4 and column 4 lines 47-54; the mobile station determines the distances to the base stations).

For claim 4, Jokimies discloses a method, obtaining the location of the base station based on known timing advance information for different locations with a cell served by the base station (see column 4 lines 13-16; wherein by measuring the TA and the signal strength received from base station in order to know if mobile is still within its home area).

For claim 5, Jokimies discloses a method, obtaining the location of the base station based on receiving a message including base station location information (see Figure 1 step 4; receiving RSS (received signal strength)).

For claim 6, Jokimies discloses a method, obtaining the location of the base station from a table of base station locations stored on the wireless communications device (see Figure 1 step 4, store RSS and Figure 4).

For claim 7, Nam discloses a method, obtaining the base station locations stored in the table by downloading to the wireless communications device (see page 15 lines 21-23; wherein the table of base station locations includes at least the three base stations contacted and see page 16 lines 2-10; wherein the location of the base station

is transmitted as a message; inherently, the table is downloaded to the wireless communications device upon receiving that message).

For claim 8, Jokimies discloses a method, determining the timing advance at in the wireless communications device for transmitting voice over a packet network (see Figure 1 wherein the determination of TA is at the mobile station and column 3 line 20-21, the present invention is applicable to GSM; inherently, those networks support voice over packet).

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jokimies in view of Nam, and in further in view of Carlsson (US 6,603,978).

For claim 3, Jokimies in view of Nam discloses all the subject matter with the exception of the wireless communications device includes a satellite positioning system receiver, determining the location of the wireless communications device by obtaining a satellite positioning system based location fix. However, Carlsson discloses a wireless communications device includes a satellite positioning system receiver (see Figure 2 element 130; 130 is the GPS receiver in the mobile terminal 100), determining the location of the wireless communications device by obtaining a satellite positioning system based location fix (see column 4 lines 50-52). Thus, it would have been obvious to the one skill in the art at the time of the invention to add the GPS receiver in the component of a mobile station as taught by the invention of Carlsson into the system of Jokimies and Nam for the purpose of receiving GPS signals from the satellites and getting the exact position of the mobile in the world.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jokimies in view of Nam and in further in view of the background of the invention of Bontempi (2002/0150092) et al hereinafter referred to as bontempi.

For claim 9, Jokimies in view of Nam discloses all the subject matter with the exception of determining the timing advance at in the wireless communications device during a push-to-talk session over a packet network. However the background of the invention of Bontempi teaches the voice of Internet protocol (VoIP) in any telecommunication system and the use of the push-to-talk system, which is a call Group communication that allows active users in the specific subscriber group to communicate using "push-to-talk, release-to-listen" feature (see page 1 paragraph 0008). Thus, it would have been obvious to the person of ordinary skill in the art at the invention to use the push-to-talk system as taught by the background of the invention of Bontempi in the communication network of Jokimies and Nam to determine the timing advance during the push-to-talk session. The motivation of using the push-to-talk communication being that is a short call setup time and makes the push-to-talk type of speech calls attractive to several other types of users.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent,

except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 12-17 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Chen et al (US 2003/0139188), hereinafter referred to as Chen.

For claim 12, Chen discloses a method in a wireless communications device, the method comprising: obtaining first timing information for the wireless communications device at a first known location relative to a base station (see Figure 3, d(TA_lo)); obtaining second timing information for the wireless communications device at a second known location relative to the base station (see Figure 3, d(TA_up)); determining a location of the base station based on the first and second timing information and based on the first and second known locations (see page 2 paragraph 0025 lines 17-21).

For claim 13, Chen discloses a method in wireless communications device, the method comprising: determining a difference between a current cell timing and a prior cell timing for a common serving cell (see Figure 3, wherein TA_up is current cell timing and TA_low is a prior cell timing and the difference is the TA of MS 22); determining a current timing advance for the common serving cell using the difference between the current cell timing and the prior cell timing and using a prior timing advance corresponding to the prior cell timing (see page 2 paragraph 0025 lines 16-17; base station determines a TA value for MS22).

For claim 14, Chen discloses a method using the current timing advance for communicating with the network (see page 2 paragraph 0024 lines 7-10; the use of the

TA value to reposition the uplink burst; inherently, using the TA to communicate with the network), determining the current timing advance before communicating with the network (see page 2 paragraph 0024 lines 6-10; the TA is calculated before using it).

For claim 15, Chen discloses a method in a wireless communications device having a look-up table providing timing advance information associated with different locations relative to at least one base station (see Figure 3, TA_lo and TA_up which are two different timing advances associated with different locations and see page 2 paragraph 0024 lines 6-7; the TA is sent to MS 22; inherently, MS 22 has the TA's which are considered as a look-up table), the method comprising: determining a location of the wireless communications device (see page 2 paragraph 0025 lines 17-21) ; determining timing advance information for the location of the wireless communication device from the look-up table (see page 2 paragraph 0025 lines 16-17; base station determines a TA value for MS22 using TA_lo and TA_up).

For claim 16, Chen discloses a method, determining timing advance information for the location of the wireless communication device using timing advance information in the look-up table only if the location of the wireless communications device is within a specified distance of a location in the look-up table for which timing advance information is provided (see page 2 paragraph 0025 lines 16-17; base station determines a TA value for MS 22 using TA_lo and TA_up and see Figure 3 wherein the location of MS 22 is within a specified distance of d(TA_lo0 and d(A_up)).

For claim 17, Chen discloses a method, obtaining timing advance information from a source other than the look-up table if the location of the wireless communications device is not within a specified distance of a location in the look-up table for which timing advance information is provided (see page 2 paragraph 0025 lines 16-17; base station is the source that determines a TA value for MS 22 using TA_lo and TA_up and see Figure 3 wherein the location of MS 22 is not within a specified distance of the base station).

For claim 20, Chen discloses a method in a wireless communications device, the method comprising: determining timing advance on the wireless communications device (see page 2 paragraph 0024 lines 6-7); transmitting a modified burst to a network using the timing advance determined on the wireless communications device (see page 2 paragraph 0024 lines 7-10; transmitting a burst at a time corresponding to the TA value).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Scott.

For claims 21 and 22, Chen discloses all the subject matter with the exception of transmitting a modified access burst having a reduced guard time relative to an un-modified access burst and transmitting a modified normal burst having an increased guard time relative to an un-modified normal access burst, without first transmitting an access burst. However, Scott teaches that the increase or the decrease of the guard time is relative to the propagation delay time and can be expressed by a number of bits or chips and resulting the advancing or retarding the timing by the number of bits or chips specified (see column 11 line 62 to column 12 line 14). Thus, it would have been obvious to the person of ordinary skill in the art at the invention to use the increase / decrease of the guard time to prevent the interference.

10. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Johnson (US 5,839,071).

For claim 23, Chen discloses all the subject matter with the exception of receiving a timing advance correction from the network after sending the modified burst to the network. However, Johnson teaches that a base station provides a timing advance TA number that indicates the number of bits in advance, which the mobile station should transmit its bursts. Moreover, the corrected TA will be determined at the call setup and will be provided to the mobile station (see column 9 lines 54-67). Thus, it would have been obvious to the person of ordinary skill in the art at the invention to use the method of Johnson in the communication of Chen to prevent the delay, which occurs when the mobile station is very close to the base station.

11. Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Jokimies.

Form claim18, Chen discloses all the subject matter without explicitly disclosing the update of the look up table with the TA information from a source other than the look-up table. However, Jokimies discloses the update of the TA by the mobile station from base stations (see Figure 1 steps 4-6 and Figure 4 and page 4 column 13-16). Thus, it would have been obvious to the one skill in the art at the time of the invention to use the update of TA when the mobile station is moving around as taught by the invention of Jokimies into the system of Chen for the purpose of monitoring the mobile station and figuring out if it still within its home area.

For claim 19, Jokimies discloses the use of TA when communicating voice over a packet network (see Figure 2 that uses GSM standards).

Response to Argument

12. Applicant's arguments with respect to the claims 1-9 and 12-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully

consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner. In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

When responding to this office action, applicants are advised to clearly point out the patentable novelty which they think the claims present in view of the state of the art disclosed by the references cited or the objections made. Applicants must also show how the amendments avoid such references or objections. See 37C.F.R 1.111(c). In addition, applicants are advised to provide the examiner with the line numbers and pages numbers in the application and/or references cited to assist examiner in locating the appropriate paragraphs.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hicham B. Foud whose telephone number is 571-270-1463. The examiner can normally be reached on Monday - Thursday 10-3 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hicham Foud
12/17/07

CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600